

Division of Facilities Construction and Management

Request For Bids For Construction Services Two-Stage Bidding Process

Stage II Invitation to Bid

March 24, 2006

ASBESTOS ABATEMENT AND DEMOLITION LIND LECTURE HALL

WEBER STATE UNIVERSITY OGDEN, UTAH

DFCM Project No. 05283810

Rowland Consulting, Inc. 7301 South Paddington Road West Jordan, Utah 84084

TABLE OF CONTENTS

	<u>Page Number</u>
Title Sheet	1
Table of Contents	2
Invitation to Bid	3
Stage II - Bidding Process	4
Stage II - Project Schedule	9
Bid Form	10
Bid Bond Form	12
Contractors Sublist Form	13
Fugitive Dust Plan	16
Contractor's Agreement	23
Performance Bond	28
Payment Bond	29
Change Order Form	30
Certificate of Substantial Completion	31

Current copies of the following documents are hereby made part of these contract documents by reference. These documents are available on the DFCM web site at http://dfcm.utah.gov or are available upon request from DFCM:

DFCM General Conditions dated May 25, 2005 DFCM Application and Certificate for Payment dated May 25, 2005

Technical Specifications: Drawings:

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at http://dfcm.utah.gov

INVITATION TO BID

ONLY CONTRACTORS PREVIOUSLY SHORT-LISTED DURING STAGE I ARE ALLOWED TO BID ON THIS PROJECT

The State of Utah - Division of Facilities Construction and Management (DFCM) is requesting bids for the construction of the following project:

ASBESTOS ABATEMENT AND DEMOLITION - LIND LECTURE HALL WEBER STATE UNIVERSITY – OGDEN, UTAH DFCM PROJECT NO. 05283810

This project is to support the remodel of the Lind Lecture Hall at Weber State University. The work includes the demolition of the asbestos-containing textured ceiling on the second floor with abatement of the associated over-spray on structural and mechanical components. The first floor abatement consists of removal of the asbestos-containing textured ceiling material (scrape only) with a demolition schedule. Vinyl asbestos floor tile and mastic with asbestos-containing thermal system insulation are also called out for abatement. Construction estimate: \$215,000.00.

<u>Company</u>	<u>Contact</u>	<u>Fax</u>
Eagle Environmental, Inc.	Chris Rindlisbacher	801-936-1505
Environmental Abatement, Inc.	Shannon Sandberg	801-936-1669
Fresh Air Environmental	Ken Stoker	801-532-1585
PDGE	Bill Garrido	702-566-4611
Rocmont Industrial, Inc.	Pat Philabaum	801-359-7755
Thermal West Industrial	Russell Baker	801-936-9553

The bid documents will be available on at 10:00 AM on Friday, March 24, 2006 in electronic format from DFCM at 4110 State Office Building, Salt Lake City, Utah 84114, telephone (801)-538-3018 and on the DFCM web page at http://dfcm.utah.gov. For questions regarding this project, please contact Bob Anderson, Project Manager, DFCM, at (801)-652-6754. No others are to be contacted regarding this project.

A **MANDATORY** pre-bid meeting and site visit will be held at 10:00 AM on Wednesday, March 29, 2006 at the Lind Lecture Hall at Weber State University in Ogden, Utah. Meet at the first floor south doors. All short listed prime contractors wishing to bid on this project must attend this meeting.

Bids must be submitted by 3:00 PM on Thursday, April 6, 2006 to DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. Note: Bids must be received at 4110 State Office Building by the specified time. The contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction & Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of the State.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT MARLA WORKMAN, CONTRACT COORDINATOR 4110 State Office Bldg., Salt Lake City, Utah 84114

STAGE II BIDDING PROCESS

ONLY CONTRACTORS PREVIOUSLY SHORT-LISTED DURING STAGE I ARE ALLOWED TO BID ON THIS PROJECT

1. Invitational Bid Procedures

Invitation to Bid: DFCM will notify each short-listed firm via e-mail and/or fax when a project is ready for construction services.

Bid Documents: Bidding documents including plans and specifications (if applicable) may be obtained by accessing DFCM's web page at http://dfcm.utah.gov or at DFCM's office 4110 State Office Building, Salt Lake City, Utah 84114.

Mandatory Pre-Bid Site Meeting: If required, the schedule contained in this document will indicate the date, time, and place of the mandatory pre-bid site meeting. At this meeting, contractors will receive additional instructions about the project and have an opportunity to ask questions about project details. If a firm fails to attend a pre-bid site meeting labeled "Mandatory" they will not be allowed to bid on the project.

Written Questions: The schedule contained in this document will indicate the deadline for submitting questions in writing to the DFCM Representative pertaining to this project.

Final Addendum: The schedule contained in this document will indicate the deadline for DFCM issuing the final addendum clarifying questions and changes to the scope of work. Contractors are responsible for obtaining and responding to information contained in the addenda.

Submitting Bids: Bids must be submitted to DFCM, 4110 State Office Building, Salt Lake City, Utah 84114 by the deadline indicated on the schedule contained in this document. Bids submitted after the deadline will not be accepted. Bids will be opened at DFCM on the date, time, and place indicated on the schedule. (Additional information pertaining to bidding is contained later in this document). It is your responsibility to allow for the time needed to park on Capitol Hill as recent construction activity has made the parking more difficult. Identification is required to enter the building.

Subcontractors List: The firm selected for the project must submit a list of all subcontractors by the deadline indicated on the schedule contained in this document. (Additional information pertaining to subcontractor lists is contained later in this document)

2. <u>Drawings and Specifications, Other Contract Documents</u>

Drawings and Specifications, as well as other available Contract Documents, may be obtained as stated in the Notice to Contractors.

3. **Bids**

Before submitting a bid, each bidder shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the Contract Documents. If the bidder observes that portions of the Contract Documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Representative and the necessary changes shall be accomplished by Addendum.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Notice to Contractor's prior to the published deadline for the submission of bids.

Bid bond security, in the amount of five percent (5%) of the bid, made payable to the Division of Facilities Construction and Management, shall accompany bid. THE BID BOND MUST BE ON THE BID BOND FORM PROVIDED IN THE PROCUREMENT DOCUMENTS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID.

If the bid bond security is submitted on a bid bond form other than the DFCM's required bid bond form, and the bid security meets all other legal requirements, the bidder will be allowed to provide an acceptable bid bond by the close of business on the next business day following notification by DFCM of submission of a defective bid bond security. **Note: A cashier's check cannot be used as a substitute for a bid bond.**

4. Contract and Bond

The Contractor's Agreement will be in the form bound in the specifications. The Contract Time will be as indicated in the bid. The successful bidder, simultaneously with the execution of the Contract Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the Contract Sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for Subcontractors will be specified in the Supplementary General Conditions.

5. <u>Listing of Subcontractors</u>

Listing of Subcontractors shall be as summarized in the "Instructions and Subcontractor's List Form", which are included as part of these Contract Documents. The subcontractors list shall be delivered to DFCM or faxed to DFCM at (801)538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the Contract Documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements is subject to a debarment hearing and may be debarred from consideration for award of contract for a period of up to three years.

6. <u>Interpretation of Drawings and Specifications</u>

If any person or entity contemplating submitting a bid is in doubt as to the meaning of any part of the drawings, specifications or other Contract Documents, such person shall submit to the DFCM Representative a request for an interpretation thereof. The person or entity submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by Addenda duly issued and a copy of such Addenda will be mailed or delivered to each person or entity receiving a set of documents. Neither DFCM nor A/E will be responsible for any other explanations or interpretations of the proposed documents. A/E shall be deemed to refer to the architect or engineer hired by DFCM as the A/E or Consultant for the Project.

7. Addenda

Any Addenda issued during the time of bidding shall become part of the Contract Documents made available to the bidders for the preparation of the bid, shall be covered in the bid, and shall be made a part of the Contract.

8. **Award of Contract**

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of the State of Utah to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. The DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc.

9. **DFCM Contractor Performance Rating**

DFCM will evaluate the performance of the Contractor. This evaluation may include comments from the User. The Contractor will have an opportunity to review and comment on the evaluation. Evaluations, including the Contractor's comments, may be considered in future selection in the evaluation of the Contractor's past performance.

10. Licensure

The Contractor shall comply with and require all of its Subcontractors to comply with the license laws as required by the State of Utah.

11. Right to Reject Bids

DFCM reserves the right to reject any or all Bids.

12. <u>Time is of the Essence</u>

The completion deadline for this project is **June 16, 2006.** Failure to meet the completion deadline may result in a poor performance rating from DFCM which may have a negative impact on your firm's ability to obtain future work with the state of Utah and may also result in liquidated damages being assessed. Time is of the essence in regard to all the requirements of the Contract Documents.

13. Withdrawal of Bids

Bids may be withdrawn on written request received from bidders within 24 hours after the bid opening if the contractor has made an error in preparing the bid.

14. **Product Approvals**

Where reference is made to one or more proprietary products in the Contract Documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the Contract Documents, the products of other manufacturers will be accepted, provided they equal or exceed

Stage II – Bidding Process Page No. 5

the standards set forth in the drawings and specifications and are compatible with the intent and purpose of the design, subject to the written approval of the A/E. Such written approval must occur prior to the deadline established for the last scheduled addenda to be issued. The A/E's written approval will be in an issued Addendum. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the A/E.

15. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors

Contractors shall respond promptly to any inquiry in writing by the DFCM to any concern of financial responsibility of the Contractor, Subcontractor or Sub-subcontractor.

16. **Debarment**.

By submitting a bid, the Contractor certifies that neither it nor its principals, including project and site managers, have been, or are under consideration for, debarment or suspension, or any action that would exclude such from participation in a construction contract by any governmental department or agency. If the Contractor cannot certify this statement, attach to the bid a detailed written explanation which must be reviewed and approved by the DFCM as part of the requirements for award of the Project.





Division of Facilities Construction and Management

PROJECT SCHEDULE STAGE II - TWO STAGE BIDDING PROCESS

DFCM PROJECT NAME:	LIND LECTURE HALL – ASBESTOS ABATEMENT & DEMOLITION WEBER STATE UNIVERSITY – OGDEN, UTAH			
DFCM PROJECT NO:	05283810			
Event	Day	Date	Time	Place
Stage II Bidding Documents Available	Friday	March 24, 2006	10:00 AM	DFCM 4110 State Office Bldg, SLC, UT and DFCM web site*
Mandatory Pre-Bid Site Meeting	Wednesday	March 29, 2006	10:00 AM	Lind Lecture Hall 1st Floor South Doors Weber State University Ogden, UT
Last Day To Submit Questions	Friday	March 31, 2006	4:00 PM	DFCM 4110 State Office Bldg, SLC, UT
Final Addendum Issued	Monday	April 3, 2006	4:00 PM	DFCM 4110 State Office Bldg, SLC, UT or DFCM web site*
Prime Contractors Turn in Bid and Bid Bond / Bid Opening in DFCM Conference Room	Thursday	April 6, 2006	3:00 PM	DFCM 4110 State Office Bldg, SLC, UT
Subcontractors List Due	Friday	April 7, 2006	3:00 PM	DFCM 4110 State Office Bldg, SLC, UT
Project completion Date	Friday	June 16, 2006	4:00 PM	

^{*} DFCM's web site address is http://dfcm.utah.gov





Division of Facilities Construction and Management

BID FORM

NAME OF BIDDER	DATE
To the Division of Facilities Construction and Management 4110 State Office Building	
Salt Lake City, Utah 84114	
The undersigned, responsive to the "Notice to Contractors" and in account for the LIND LECTURE HALL ASBESTOS ABATEMENT AND STATE UNIVERSITY – OGDEN, UTAH - DFCM PROJECT NO.	<u> DEMOLITION - WEBER</u>
the Contract Documents and the site of the proposed Work and being surrounding the construction of the proposed Project, including the average to furnish all labor, materials and supplies as required for the Work in Documents as specified and within the time set forth and at the price all expenses incurred in performing the Work required under the Contagrant:	familiar with all of the conditions vailability of labor, hereby proposes a accordance with the Contract stated below. This price is to cover
I/We acknowledge receipt of the following Addenda:	
For all work shown on the Drawings and described in the Specification agree to perform for the sum of:	ons and Contract Documents, I/we
	DOLLARS (\$)
(In case of discrepancy, written amount shall govern)	
I/We guarantee that the Work will be Substantially Complete by June to Proceed, should I/we be the successful bidder, and agree to pay lique \$500.00 per day for each day after expiration of the Contract Time as Contractor's Agreement.	uidated damages in the amount of
This bid shall be good for 45 days after bid opening.	
Enclosed is a 5% bid bond, as required, in the sum of	
The undersigned Contractor's License Number for Utah is	·

BID FORM PAGE NO. 2

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract. The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within time set forth.

Type of Organization:		
71 C	(Corporation, Partnership, Indiv	ridual, etc.)
Any request and inform	nation related to Utah Preference	Laws:
	Respec	tfully submitted,
	Name o	of Bidder
	ADDR	ESS:
	Author	ized Signature

BID BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

the "Dringing!" and		hereinafter referred t	to as
the "Principal," and under the laws of the State of, with its business in this State and U. S. Department of the Treasury Listed Securities on Federal Bonds and as Acceptable Reinsuring Compa	a, (Circular 5 /0 anies): hereinat	of the referred to as the "Surety." are held and firmly bound in	unto
the STATE OF UTAH, hereinafter referred to as the "Obligee, accompanying bid), being the sum of this Bond to which paradministrators, successors and assigns, jointly and severally, firm	" in the amour yment the Prii mly by these p	nt of \$ (5% of ncipal and Surety bind themselves, their heirs, execur- presents.	f the tors,
THE CONDITION OF THIS OBLIGATION IS SU bid incorporated by reference herein, dated as shown, to enter into	JCH that where	reas the Principal has submitted to Obligee the accompan writing for the	
		Pro	oject.
NOW, THEREFORE, THE CONDITION OF TH execute a contract and give bond to be approved by the Obligee fin writing of such contract to the principal, then the sum of the damages and not as a penalty; if the said principal shall execut performance thereof within ten (10) days after being notified in woold. It is expressly understood and agreed that the liability of the penal sum of this Bond. The Surety, for value received, hereby so for a term of sixty (60) days from actual date of the bid opening	for the faithful ge amount state to a contract are vriting of such the Surety for an stipulates and a	ed above will be forfeited to the State of Utah as liquid nd give bond to be approved by the Obligee for the fair contract to the Principal, then this obligation shall be null ny and all defaults of the Principal hereunder shall be the	tified dated thful l and e full
PROVIDED, HOWEVER, that this Bond is executed as amended, and all liabilities on this Bond shall be determined length herein.		rovisions of Title 63, Chapter 56, Utah Code Annotated, 1 e with said provisions to same extent as if it were copie	
IN WITNESS WHEREOF, the above bounden parties below, the name and corporate seal of each corporate party representative, pursuant to authority of its governing body.		d this instrument under their several seals on the date indic affixed and these presents duly signed by its undersign	
DATED this day of	, 20		
Principal's name and address (if other than a corporation):		Principal's name and address (if a corporation):	
	_ _		
By:		Ву:	
Title:		Title:(Affix Corporate S	
		(Affix Corporate S	Seal)
		Surety's name and address:	
STATE OF)			
) ss		By:	~ *
COUNTY OF			
On this day of, 20, personally whose identity is personally known to me or proved to me on the that he/she is the Attorney-in-fact of the above-named Surety Complied in all respects with the laws of Utah in reference to becaucknowledged to me that as Attorney-in-fact executed the same	Company, and oming sole sure	I that he/she is duly authorized to execute the same and	d has
Subscribed and sworn to before me this day of My Commission Expires: Resides at:			
Agazau		NOTARY PUBLIC	
Agency:			
Address:Phone:		Approved As To Form: May 25, 2 By Alan S. Bachman, Asst Attorney Ger	2005 neral

DFCM FORM 7b-2 052505





Division of Facilities Construction and Management

INSTRUCTION AND SUBCONTRACTORS LIST FORM

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of <u>ALL</u> first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, on the following basis:

PROJECTS UNDER \$500,000 - ALL SUBS \$20,000 OR OVER MUST BE LISTED PROJECTS \$500,000 OR MORE - ALL SUBS \$35,000 OR OVER MUST BE LISTED

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- Bidder must list "Self" if performing work itself.

LICENSURE:

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

BIDDER LISTING 'SELF' AS PERFORMING THE WORK:

Any bidder that is properly licensed for the particular work and intends to perform that work itself in lieu of a subcontractor that would otherwise be required to be on the subcontractor list, must insert the term 'Self' for that category on the subcontractor list form. Any listing of 'Self' on the sublist form shall also include the amount allocated for that work.

'SPECIAL EXCEPTION':

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A.Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

DFCM FORM 7b-2 052505

INSTRUCTIONS AND SUBCONTRACTORS LIST FORM Page No. 2

GROUNDS FOR DISQUALIFICATION:

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

- (1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
- (2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
- (3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
- (4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
- (5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
- (6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

EXAMPLE:

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #
ELECTRICAL	ABCD Electric Inc.	\$350,000.00	123456789000
LANDSCAPING	"Self"	300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	298,000.00	987654321000
MECHANICAL	"Special Exception" (attach documentation)	Fixed at: 350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS SUBCNTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.

DFCM FORM 7b-2 052505





PROJECT TITLE:

Division of Facilities Construction and Management

SUBCONTRACTORS LIST FAX TO 801-538-3677

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #
alternates.	ctors as required by the instructions, including ial Exception" in accordance with the instructional licensed as required by State law.		bid as well as any
	FIRM:		
TE:	SIGNED BY:		

<u>NOTICE</u>: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR DFCMS REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY DFCM. <u>ATTACH A SECOND PAGE IF NECESSARY.</u>

FUGITIVE DUST PLAN

The Contractor will fill out the form and file the original with the Division of Air Quality and a copy of the form with the Division of Facilities Construction & Management, prior to the issuance of any notice to proceed.

The Contractor will be fully responsible for compliance with the Fugitive Dust Control Plan, including the adequacy of the plan, any damages, fines, liability, and penalty or other action that results from noncompliance.

Utah Division of Air Quality April 20, 1999

GUIDANCE THAT MUST BE CONSIDERED IN DEVELOPING AND SUBMITTING A DUST CONTROL PLAN FOR COMPLIANCE WITH R307-309-3, 4, 5, 6, 7

1.	Name of your operation (source): provide a name if the source is a construction site.
2.	Address or location of your operation or construction site.
3.	UTM coordinates or Longitude/Latitude of stationary emission points at your operation.
4.	Lengths of the project, if temporary (time period).
5.	Description of process (include all sources of dust and fugitive dust). Please, if necessary, use additional sheets of paper for this description. Be sure to mark it as an attachment.
6.	Type of material processed or disturbed.
7.	Amount of material processed (tons per year, tons per month, lbs./hr., and applicable units).

8.	Destination of product (where will the material produced be used or transported, be specific, provide address or specific location), information needed for temporary relocation applicants.
9.	Identify the individual who is responsible for the implementation and maintenance of fugitive dust control measures. List name(s), position(s) and telephone number(s).
10.	List, and attach copies of any contract lease, liability agreement with other companies that may, or will, be responsible for dust control on site or on the project.

Description of Fugitive Dust Emission Activities (Things to consider in addressing fugitive dust control strategies.)

1.	Type of activities (drilling and blasting, road construction, development construction, earth moving and excavation, handling and hauling materials, cleaning and leveling, etc).
2.	List type of equipment generating the fugitive dust.
3.	Diagram the location of each activity or piece of equipment on site. Please attach the diagram.
4.	Provide pictures or drawings of each activity. Include a drawing of the unpaved/paved road network used to move loads "on" and "off" property.
5.	Vehicle miles travels on unpaved roads associated with the activity (average speed).
6.	Type of dust emitted at each source (coal, cement, sand, soil, clay, dust, etc.)
7.	Estimate the size of the release area at which the activity occurs (square miles). For haul or dirt roads include total miles of road in use during the activity.

Description of Fugitive Dust Emission Controls on Site

Control strategies must be designed to meet 20% opacity or less on site (a lesser opacity may be defined by Approval Order conditions or federal requirements such as NSPS), and control strategies must prevent exceeding 10% opacity from fugitive dust at the property boundary (site boundary) for compliance with R307-309-3.

1.	Types of ongoing emission controls proposed for each activity, each piece of equipment, and haul roads.
2.	Types of additional dust controls proposed for bare, exposed surfaces (chemical stabilization, synthetic cover, wind breaks, vegetative cover, etc).
3.	Method of application of dust suppressant.
4.	Frequency of application of dust suppressant.
5.	Explain what triggers the use of a special control measure other than routine measures already in place, such as covered loads or measures covered by a permit condition (increase in opacity, high winds, citizen complaints, dry conditions, etc).
6.	Explain in detail what control strategies/measures will be implemented off-hours, i.e., Saturdays/Sundays/Holidays, as well as 6 PM to 6 AM each day.

Description of Fugitive Dust Control Off-site

Prevent, to the maximum extent possible, deposition of materials, which may create fugitive dust on public and private paved roads in compliance with R307-309-5, 6, 7.

- 1. Types of emission controls initiated by your operation that are in place "off" property (application of water, covered loads, sweeping roads, vehicle cleaning, etc.).
- 2. Proposed remedial controls that will be initiated promptly if materials, which may create fugitive dust, are deposited on public and private paved roads.

Phone: (801) 536-4000

FAX:

(801) 536-4099

Submit the Dust Control Plan to:

Executive Secretary Utah Air Quality Board POB 144820 15 North 1950 West Salt Lake City, Utah 84114-4820

Fugitive Dust Control Plan Violation Report

When a source is found in violation of R307-309-3 or in violation of the Fugitive Dust Control Plan, the course must submit a report to the Executive Secretary within 15 days after receiving a Notice of Violation. The report must include the following information:

- 1. Name and address of dust source.
- 2. Time and duration of dust episode.
- 3. Meteorological conditions during the dust episode.
- 4. Total number and type of fugitive dust activities and dust producing equipment within each operation boundary. If no change has occurred from the existing dust control plan, the source should state that the activity/equipment is the same.
- 5. Fugitive dust activities or dust producing equipment that caused a violation of R-307-309-3 or the sources dust control plan.
- 6. Reasons for failing to control dust from the dust generating activity or equipment.
- 7. New and/or additional fugitive dust control strategies necessary to achieve compliance with R307-309-3, 4, 5, 6, or 7.
- 8. If it can not be demonstrated that the current approved Dust Control Plan can result in compliance with R307-309-3 through 7, the Dust Control Plan must be revised so as to demonstrate compliance with 307-309-3 through 7. Within 30 days of receiving a fugitive dust Notice of Violation, the source must submit the revised Plan to the Executive Secretary for review and approval.

Submit the Dust Control Plan to:

Executive Secretary Phone: (801) 536-4000 Utah Air Quality Board FAX: (801) 536-4099

POB 144820

15 North 1950 West

Salt Lake City, Utah 84114-4820

Attachments: DFCM Form FDR R-307-309, Rule 307-309

300/300/	/FVA/	/	/ /
	Project	No.	

CONTRACTOR'S AGREEMENT

FOR:
THIS CONTRACTOR'S AGREEMENT, made and entered into this day of, 20, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and, incorporated in the State of, and authorized to do business in the State of Utah, hereinafter referred to as "Contractor" whose address is
WITNESSETH: WHEREAS, DFCM intends to have Work performed at
WHEREAS, Contractor agrees to perform the Work for the sum stated herein.
NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:
ARTICLE 1. SCOPE OF WORK. The Work to be performed shall be in accordance with the Contract Documents prepared by and entitle"
The DFCM General Conditions ("General Conditions") dated May 25, 2005 on file at the office of DFCM and available on the DFCM website, are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.
The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.
ARTICLE 2. CONTRACT SUM. The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of
DOLLARS AND NO CENTS (\$00), which is the base bid, and which sum also includes the cost of a 100%

CONTRACTOR'S AGREEMENT PAGE NO. 2

Performance Bond and a 100% Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY. The Work shall be
Substantially Complete within () calendar days after the date of the Notice to
Proceed. Contractor agrees to pay liquidated damages in the amount of \$ per day for each day
after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance
with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for
liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because
actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement;
(c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay
damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Notice to Contractors, Instructions to Bidders/Proposers and the Bid/Proposal, to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

ARTICLE 5. PAYMENT. The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the

CONTRACTOR'S AGREEMENT PAGE NO. 3

Contractor requests payment and agrees to safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

ARTICLE 6. INDEBTEDNESS. Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

ARTICLE 7. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

ARTICLE 8. INSPECTIONS. The Work shall be inspected for acceptance in accordance with the General Conditions.

ARTICLE 9. DISPUTES. Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT. This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF. The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

ARTICLE 12. INDEMNIFICATION. The Contractor shall comply with the indemnification provisions of the General Conditions.

ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT. The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights and responsibilities of this Contractor's Agreement. The Contractor shall not assign this Contractor's Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor's Agreement, without prior written consent of the DFCM.

ARTICLE 14. RELATIONSHIP OF THE PARTIES. The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT. Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

ARTICLE 16. ATTORNEY FEES AND COSTS. Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.

CONTRACTOR'S AGREEMENT PAGE NO. 5

IN WITNESS WHEREOF, the parties hereto have executed this Contractor's Agreement on the day and year stated hereinabove.

	CONTRACTOR:	
	Signature	Date
	Title:	
State of)		_
County of)	Please type/print name clearly	_
On this day of, 20, pers	sonally appeared before me,	,
	proved to me on the basis of satisfactory evident he (she) is the (title	
who by me duly sworn (or affirmed), did say the firm and that said document was signed b	y him (her) in behalf of said firm.	01 011100)
	Notary Public	
(SEAL)	My Commission Expires	
APPROVED AS TO AVAILABILITY OF FUNDS:	DIVISION OF FACILITIES CONSTRUCTION AND MANAGE	MENT
Financial Manager, Date		Date
Division of Facilities Construction and Management	Manager - Capital	
APPROVED AS TO FORM:	APPROVED FOR EXPENDITURE:	
ATTORNEY GENERAL May 25, 2005		
By: Alan S. Bachman Asst Attorney General	Division of Finance	Date

PERFORMANCE BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That		
	, a corporation organized and existing under the	
, with its principal office in the City of		
Listed (Circular 570, Companies Holding Certificates of Authority as		
hereinafter referred to as the "Surety," are held and firmly bound unto the		
said Principal and Surety bind themselves and their heirs, administrators	DOLLARS (\$) for th	e payment whereof, the
said Principal and Surety bind themselves and their neirs, administrators	s, executors, successors and assigns, jointly and severally, firmi	y by these presents.
WHEDEAS the Dringing has entered into a certain written	Contract with the Obligee, dated the day of	20 to
construct	contract with the obligee, dated the day of	, 20, 10
in the County of State of Utah Project No.	for the approximate sum of	
, state of Stan, 110ject 140.	Dollars (\$) which
where AS, the Principal has entered into a certain written construct in the County of, State of Utah, Project No Contract is hereby incorporated by reference herein.		
The state of the s		
NOW, THEREFORE, the condition of this obligation is su	ch that if the said Principal shall faithfully perform the Contract	in accordance with the
Contract Documents including, but not limited to, the Plans, Specification		
Contract as said Contract may be subject to Modifications or changes, the		
, ,	ξ ,	
No right of action shall accrue on this bond to or for the use	of any person or corporation other than the state named herein	or the heirs, executors,
administrators or successors of the Owner.		
The parties agree that the dispute provisions provided in the C	Contract Documents apply and shall constitute the sole dispute pr	rocedures of the parties.
PROVIDED, HOWEVER, that this Bond is executed pursu	uant to the Provisions of Title 63, Chapter 56, Utah Code Annota	ated, 1953, as amended,
and all liabilities on this Bond shall be determined in accordance with sa	aid provisions to the same extent as if it were copied at length h	ierein.
IN WITNESS WHEREOF, the said Principal and Surety h	ave signed and sealed this instrument this day of	, 20
WITNESS OR ATTESTATION:	PRINCIPAL:	
	Ву:	
	TO 4	(Seal)
	Title:	
WITNESS OD ATTESTATION.	CUDETV.	
WITNESS OR ATTESTATION:	SURETY:	
	Ву:	
	Attorney-in-Fact	(Seal)
STATE OF)	Attorney-in-1 act	(Scar)
) ss.		
COUNTY OF)		
,		
On this day of, 20, personally appe	eared before me	, whose
identity is personally known to me or proved to me on the basis of satisf	factory evidence, and who, being by me duly sworn, did say tha	
in-fact of the above-named Surety Company and that he/she is duly au		
reference to becoming sole surety upon bonds, undertakings and obligat		
	,	
Subscribed and sworn to before me this day of	, 20	
·		
My commission expires:		
Resides at:		
	NOTARY PUBLIC	
Agency:		
Agent:	ll l	
Address:		7 M: 05 0005
Phone:	Approved As 10 I	Form: May 25, 2005
II	By Alan S. Bachman, A	ssi Auorney General

PAYMENT BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That		hereinafter referred to as	
and U. S. Department of th Acceptable Reinsuring Com	, a corporation organized and existing under e Treasury Listed (Circular 570, Companies He panies); with its principal office in the City of r referred to as the "Obligee," in the amount of	olding Certificates of Authority as Acc hereinafter referred to a	eptable Securities on Federal Bonds and as s the "Surety," are held and firmly bound unto
Dollars (\$) for the payment whereof, the said Principerally, firmly by these presents.	oal and Surety bind themselves and their	heirs, administrators, executors, successors
WHEREAS, the	e Principal has entered into a certain written Con	ntract with the Obligee, dated the	day of, 20,
in the County of	, State of Utah, Project No.	for the approximate sum of Dollars (\$) which contract is hereby
incorporated by reference h	erein.		
or Principal's Subcontractor	FORE, the condition of this obligation is such the sin compliance with the provisions of Title 63, Contract, then, this obligation shall be void; other	Chapter 56, of Utah Code Annotated, 195	53, as amended, and in the prosecution of the
of the Contract or to the Wor	to this Bond, for value received, hereby stipulate rk to be performed thereunder, or the specification be of any such changes, extensions of time, alterathey shall become part of the Contract Docume	ns or drawings accompanying same shall ations or additions to the terms of the Co	in any way affect its obligation on this Bond
	OWEVER, that this Bond is executed pursuant to hall be determined in accordance with said proving the said p		
IN WITNESS V	WHEREOF, the said Principal and Surety have	signed and sealed this instrument this	day of, 20
WITNESS OR ATTESTA	TION:	PRINCIPAL:	
			(Seal)
WITNESS OR ATTESTA	TION:	SURETY:	
		Ву:	
STATE OF) ss.	Attorney-in-Fact	(Seal)
COUNTY OF) .day of, 20,	narranally appropried before me	
satisfactory evidence, and w authorized to execute the s		, whose identity is personally k is the Attorney-in-fact of the above-nan laws of Utah in reference to becoming	known to me or proved to me on the basis of ned Surety Company, and that he/she is duly
Subscribed and sworn to be	fore me this day of	20	
•		VOTANYANIA	
Agency:		NOTARY PUBLIC	
Agent:			Approved As To Form: May 25, 2005 y Alan S. Bachman, Asst Attorney General



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

Division of Facilities Construction and Management

CONTRACTOR: ARCHITECT:		AGENCY OR INSTITUTION: PROJECT NAME: PROJECT NUMBER: CONTRACT NUMBER:					
ARCI	HITEGT:		DF	ATE:	<u> </u>		ī
	CONSTRUCTION CHANGE	PROPOSAL	AMOUNT		DAYS		
	DIRECTIVE NO.	REQUEST NO.	INCREASE	DECREASE	INCREASE	DECREASE	
							Í
							ĺ
							Í
							Í
							ĺ
							Í
							ĺ
				Amount	Days	Date	
	ORIGINAL CONTRA	ACT		7 tilloditi	Bayo		İ
	TOTAL PREVIOUS CHANGE ORDERS						İ
	TOTAL THIS CHANGE ORDER						Í
	ADJUSTED CONTRACT						ĺ
Chan and in	M and Contractor agge Order shall cons ncludes all direct an such change in the	titute the full ac d indirect costs	ccord and satis and effects re	faction, and co lated to, incide	emplete adjust ental to, and/o	ment to the Con	ntract
Cont	ractor:						
Archi	tect/Engineer:					Date	
Ager	cy or Institution:					Date	
						Date	
	M:					Date	
Fund	ing Verification:_					Date	
4110	State Office Building, S	Salt Lake City Uta	ah 84114				



Division of Facilities Construction and Management

DFCM

CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT		PROJE	CT NO:	
AGENCY/INSTITUTION				_
AREA ACCEPTED				
The Work performed under the subject Condefined in the General Conditions; including Documents, as modified by any change orders area of the Project for the use for which it is	g that the c s agreed to b	construction is sufficiently	completed in accord	lance with the Contract
The DFCM - (Owner) accepts the Project or specified area of				
The DFCM accepts the Project for occupancy utilities and insurance, of the Project subject				
The Owner acknowledges receipt of the followard Record Drawings O&M Mark A list of items to be completed or corrected (Presponsibility of the Contractor to complete changes thereof. The amount of Incomplete Changes thereof.	nnuals Punch List) all the Wo	☐ Warranty Documents is attached hereto. The fail ork in accordance with the	Completic Requirem ure to include an iter Contract Document	n on it does not alter the as, including authorized
completion of the punch list work. The Contractor shall complete or correct thecalendar days from the above date of issist the Owner has the right to be compensated for expense of the retained project funds. If the Owner shall be promptly reimbursed for the light to the light terms of the li	uance of thi r the delays retained pro	is Certificate. If the list of it and/or complete the work v oject funds are insufficient the funds needed to comper	tems is not completed with the help of indep to cover the delay/co	d within the time allotted bendent contractor at the ompletion damages, the
CONTRACTOR (include name of firm)		(Signature)		DATE
A/E (include name of firm)	_ by:	(Signature)		DATE
USING INSTITUTION OR AGENCY	_ by:	(Signature)		DATE
DFCM (Owner)	_ by:	(Signature)		DATE
4110 State Office Building, Salt Lake City, Utelephone 801-538-3018 • facsimile 801-538		4	cc:	Parties Noted DFCM, Director

ASBESTOS ABATEMENT SPECIFICATIONS

WEBER STATE UNIVERSITY LIND LECTURE HALL ASBESTOS ABATEMENT AND DEMOLITION

March 24th, 2006

State of Utah
Division of Facilities Construction and Management
Project No. 05283810

Prepared by:

State of Utah
Division of Facilities and Construction Management
4110 State Office Building
Salt Lake City, Utah 84114
Tel 801-538-3018
Fax 801-538-3267

ASBESTOS ABATEMENT SPECIFICATIONS TABLE OF CONTENTS

PART 1	ASBESTOS ABATEMENT GENERAL	1
1.01	GENERAL REQUIREMENTS	1
1.02	SCOPE OF WORK	3
1.03	APPLICABLE PUBLICATIONS	6
1.04	DEFINITIONS	8
1.05	ADDITIONAL ASBESTOS MATERIALS	9
1.06	ADDITIONAL SAFETY AND HEALTH CONSIDERATIONS	9
1.07	AUTHORITY TO STOP WORK	10
1.08	QUALIFICATIONS	10
1.09	AVAILABILITY OF TRAINED PERSONNEL	11
1.10	PRE-CONSTRUCTION MEETING	12
1.11	PRE-ABATEMENT SUBMITTALS	12
1.12	STANDARD OPERATING PROCEDURES	14
1.13	NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS, AND	
	POSTERS	15
1.14	EMERGENCY PRECAUTIONS	16
1.15	RESPIRATORY PROTECTION SYSTEMS	16
1.16	PROTECTIVE CLOTHING	18
1.17	DECONTAMINATION AND BAG TRANSFER FACILITIES	18
1.18	EMISSION CONTROLS	19
1.19	PERSONNEL PROTECTION AND DECONTAMINATION	20
1.20	DISPOSAL ACTIVITIES	21
1.21	TIME OF COMPLETION AND LIQUIDATED DAMAGES	21
PART 2	ASBESTOS ABATEMENT - PRODUCTS	22
2.01	TOOLS AND EQUIPMENT	22
PART 3	ASBESTOS ABATEMENT - EXECUTION	23
3.01	ASBESTOS ABATEMENT PREPARATIONS	23
3.02	UTILITIES	25
3.03	ASBESTOS REMOVAL	26
3.04	SUBMITTALS DURING & AFTER ABATEMENT	27
3.06	MONITORING, TESTING & INSPECTION	27
3.06	CLEANING AND FINAL DECONTAMINATION	28
3.07	FINAL INSPECTION AND TESTING	29
3.08	RESPONSIBILITY FOR DAMAGES	30
PART 4	FLOOR PLANS	

ASBESTOS ABATEMENT SPECIFICATIONS WEBER STATE UNIVERSITY

LIND LECTURE HALL ASBESTOS ABATEMENT AND DEMOLITION

.c1.PART 1 ASBESTOS ABATEMENT - GENERAL

.c2.1.01 GENERAL REQUIREMENTS

- A. The specific materials that are to be removed are identified on the following pages and will be discussed at the Pre-Bid meeting. **Attendance at the Pre-Bid meeting is mandatory for all bidders.**
- B. Note that all quantities and sizes discussed herein are only approximations and are not intended to be considered exact for bid purposes. It is the responsibility of all Bidders to determine the exact quantities and sizes of materials involved and associated removal costs by inspecting the work site.
- C. The Contractor must provide a copy of a detailed work plan at least 5 five working days before <u>any</u> work will be allowed to start. Deviations from the work plan must be approved by the Contractor Industrial Hygiene Consultant (CIHC), and/or Building Owner's Representative prior to the proposed change.
- D. The Contractor must conduct a Pre-Abatement meeting with building owner's representatives, building users and occupants, and consultants in attendance. The meeting will be held to inform all parties about the project, the various precautions, which are to be taken by the Contractor, what areas the occupants should avoid, and to answer any questions which may be raised by Owner and occupants.
- E. The Contractor shall provide sufficient numbers of trained and certified personnel to complete the project in an efficient and timely manner. The Contractor must maintain consistent supervision of his work force for the duration of the project. The Owner must approve any changes in the Contractor's on-site supervisory staff.
- F. Storage of equipment supplies, waste containers, and vehicles outside the building must be conducted in such a manner as to cause a minimum of inconvenience to related campus functions and activities. Arrangements for Contractor employee parking must be resolved with the building Owner prior to starting the project.
- G. Bidders should anticipate unforeseen instances where outside work may be required. This may include electricians, carpenters, sheetmetal fabricators, masons, etc. It is the Bidder's responsibility to determine where and when these subcontractors may be necessary and to include their costs in the overall bid. Efforts will be made at the bidwalk to identify such situations.

- H. All electricity to the abatement areas must be turned off, isolated, and OSHA lock-out/tag-out procedures followed. Lighting and electrical power must be drawn through GFCI breakers from other parts of the building. A state-licensed electrical contractor must be employed for all electrical tie-ins and should be consulted before isolating any breakers. All electrical power cords must be kept dry and off the floor. In addition, the temporary lighting required for interior work, Contractor will be required to verify adequate lighting for all areas as per OSHA Illumination Standard.
- I. A Substantial Completion walk-through per area of the building will be held at the completion of the asbestos abatement portion of the project. This walk-through will be conducted by the Building Owner and/or his Representative with representation by the Contractor and his CIHC. At this time, the Contractor will be given a punch-list of items, which will need to be fixed or corrected before each floor of the building is passed-off and/or the abatement portion of the project declared complete. The Building Owner and/or his representative, will conduct a Final Inspection to determine completion of items deemed for correction. After the Final Inspection, if any of the items are found to be inadequately addressed, the Contractor will be responsible for all additional expenses incurred by the Building Owner and/or his representative for additional inspections and remedial actions necessary to resolve the item(s) in question.
- J. The Contractor will be responsible for the procurement of an insurance certificate that is project specific. Certificate shall denote that the Owner be listed as the "Certificate Holder" and as an "Additional Insured" to the policy.

SCOPE OF WORK

WEBER STATE UNIVERSITY LIND LECTURE HALL

A. I. BASE BID: The Contractor shall remove all the Asbestos Containing Material (ACM) from the following areas:

2ND FLOOR TEXTURED CEILING MATERIAL (TCM)

a. Remove ~6,520 square feet of TCM from the ceilings of the following areas:

Rooms 205, 206, 208,

209, 224 585 sq. ft. Classrooms: 3,080 sq. ft. Hallways: 2,475 sq. ft. 6,330 sq. ft.

3% overspray 6,520 sq. ft.

NOTE: the Contractor shall demolish all the metal lath/plaster ceilings and associated batting insulation from these areas. All overspray of the TCM on items remaining from the demolition of the ceiling shall be removed by the Contractor.

2ND FLOOR FLOOR TILE AND MASTIC

b. Remove ~2,729 square feet of 9" floor tile and mastic from the following areas:

Rooms 205, 206, 208,

209, 224 585 sq. ft. Hallways 2,144 sq. ft. 2,729 sq. ft.

$\frac{2^{\underline{ND}} \ FLOOR \ THERMAL \ SYSTEM \ INSULATION \ (TSI)}{\underline{JOINTS/FITTINGS} \ (\underline{MUDDED})}$

- c. Remove ~250 each of the Thermal System Insulation (TSI) from above the demolished ceilings (including all mudded joints, tees, fittings, conicals, hanger supports, mudded valves, and other associated items on the mechanical piping).
- **d.** All wall, HVAC components, mechanical piping, and ceiling deck surfaces will be completely wet-wiped and HEPA vacuumed prior to any visual inspections.

A. II. BASE BID: The Contractor shall remove all the ACM from the following areas:

1ST FLOOR TCM

a. Remove ~8,186 square feet of TCM from the ceilings of the following areas:

Exhibits Museum 1,820 sq. ft. Hallways 6,336 sq. ft. 8,186 sq. ft.

1ST FLOOR FLOOR TILE AND MASTIC

b. Remove ~8,186 square feet of 9" floor tile and mastic from the following areas:

Exhibits Museum 1,820 sq. ft. Hallways 6,336 sq. ft. 8,186 sq. ft

NOTE: the 1st floor ceiling *will not* be demolished, and will remain in place.

A.III. BASE BID: The Contractor shall remove all the ACM from the following areas:

MECHANICAL ROOM AND TUNNEL TO SCIENCE BUILDING TSI JOINTS/FITTINGS (MUDDED) NOTE = THIS TUNNEL IS ~120 LN. FT.

a. Remove all TSI JOINTS/FITTINGS (MUDDED) from the following areas: *Heating Water (red/orange)*

6" OD	8" OD	4" OD
40 each	30 each	
Chilled Water (green)		

6" OD 8" OD 4" OD 50 each 40 each

TOTAL = 250 each

b. Contractor shall provide a unit price for any *ACM hard inserts at each strap hanger location*.

MECHANICAL ROOM CIRCULAR TUNNEL TSI JOINTS/FITTINGS (MUDDED) NOTE = THIS TUNNEL IS ~313 LN. FT.

 $\boldsymbol{c.}$ Remove all TSI JOINTS/FITTINGS (MUDDED) from the following areas:

Heating Water (red/orange)

Health's Haler (real orange	<u>c)</u>	
<u>6" OD</u>	8" OD	4" OD
65 each	30 each	65 each
Chilled Water (green)		
6" OD	8" OD	4" OD
55 each	65 each	40 each
Hot Water (yellow)		
<u>6" OD</u>	8" OD	4" OD
		130 each

TOTAL = 450 each

- **d.** Contractor shall provide a unit price for any ACM hard inserts at each strap hanger location.
- **A.IV. BASE BID:** The Contractor shall remove all the ACM from the following areas:

MECHANICAL ROOM AND AIR HANDLERS ACOUSTICAL LINING

- **a.** Remove ~1,911 square feet of acoustical lining from the walls and ceilings of this area.
- **A.V. BASE BID:** The Contractor shall take the following steps necessary to protect any remaining Museum Exhibit displays *and* glass display cases (including wall mounted) which are to be protected in place:
 - Contractor shall install hard barrier structures around remaining Museum Exhibit displays utilizing 2x4 framing with heavy plywood sheeting attached.
 - Contractor shall install hard barrier structures around remaining glass walls, frames, dividers, and any other glass display in the Museum Exhibit utilizing 2x4 framing with heavy plywood sheeting attached.
 - Contractor shall ensure that each hard barrier structure built will be substantial enough in strength to withstand daily activities inside the asbestos abatement work area.

B. OTHER CONDITIONS

- 1. Contractor shall complete the entire asbestos abatement in the area listed in paragraph A.I., A.II., A.III., A.IV., and A.V no later than June 16th, 2006.
- 2. The Contractor shall furnish all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements required to safely remove asbestos in the areas identified under Base Bid of this Section. The Contractor shall provide sufficient labor to ensure that all work is completed in a timely manner. Work shall be performed in accordance with these specifications, applicable EPA, OSHA, Utah State Division of Air Quality, and Utah OSHA (UOSH) regulations, and any other applicable state or local regulations. Whenever there is a conflict or overlap, the most stringent regulation applies.
- 3. All dimensions, quantities or areas provided in the scope of work and in the associated plans are approximate and are only included to assist the Contractor in determining the amount of ACM designated for removal. Contractor is responsible for accurately determining the amount of ACM included in the scope of work.
- 4. Contractor shall provide manifests and a certificates of weight and measure or other certification satisfactory to the Contractor Industrial Hygiene Consultant (CIHC)/(listing gross, tare and net weight for each load), of the total weight of asbestos-containing waste material disposed of for this project. Waste generated on this project shall be kept separate from waste generated on other projects and shall be disposed of immediately upon completion of this project.
- 5. Contractor shall restrict access to the controlled area to employees of the Contractor, the CIHC, or other persons authorized by the Owner. The method used shall not impede emergency egress.
- 6. Contractor shall use scaffolding and other equipment which, in the determination of the CIHC, is clean and free of suspect ACM. Contractor shall allow inspection of all equipment by the CIHC before it is brought into the facility. As a minimum, general scaffolding set-up and erection shall comply with OSHA regulations and the following requirements:
 - i) A safety ladder with rungs spaced on 12-inch centers (positioned so the first rung is 12 inches from the floor) shall be securely attached to the scaffold frame, with a pass-through safety gate provided at the platform level (so workers do not climb over top rails to access the platform);
 - ii) Toe boards shall be firmly attached on all open sides of the platform;

- iii) Scaffold planking/decking shall be scaffold grade and clearly marked with the manufacturer's name;
- iv) Contractor shall maintain relevant manufacturer's documentation on site showing maximum loads, proper installation and operating techniques, etc.;
- v) Scaffold components shall all be fully operable and in good repair.

Extension ladders shall be used for access only and shall not be used as a work platform. Stepladders shall be used only in the open and locked position.

- 7. Contractor shall install where feasible in <u>each</u> containment a clear **plexi-glass** window no smaller than two feet square and strategically located to facilitate outside viewing and communication.
- 8. Smoking will only be allowed in designated off-site areas. These areas will be defined at the Pre-construction Conference.
- 9. Where applicable regulations are more stringent than specifications contained herein, the most stringent regulations apply. It is the Contractor's responsibility to determine if city, county, regional, State or other regulations apply and to perform work in accordance with these regulations. Contractor shall perform all work under this contract in strict compliance with all Federal (OSHA, EPA, etc.), State and local regulations.
- 10. Contractor shall encapsulate all abated surfaces. Contractor's abatement encapsulant(s) shall be approved, prior to use, by the CIHC. Contractor's biocide encapsulant for mold removal shall be approved, prior to use, by the CIHC.
- 11. Contractor shall provide an English-speaking interpreter at any time that non-English speaking workers are present on the site.
- 12. Contractor shall provide a detailed written work plan to the appropriate notification agencies and to the CIHC at least 5 days prior to the beginning of the project. The work plan provided to the CIHC shall show suggested locations for decontamination units. In addition to asbestos, the contractor shall indicate in the work plan his chronological steps for abating and cleaning of mold contaminated surfaces. Shower facilities will not be allowed on or immediately adjacent to wood floors.
- 13. Notification shall be made in writing to the appropriate fire department, police agency and health response organizations prior to the start of the project.

- 14. Contractor shall seal (critical barrier) all necessary areas on ducts, vents, diffuser lights or any pertinent structure of the HVAC system inside containment in order to assure no asbestos contamination to the vents and ducts inside or outside the containment during removal.
- 15. Contractor shall provide a minimum of four workable electrical receptacles (or plugs) for clearance sampling. Contractor's electrical system shall be approved, prior to any removal, by a licensed electrical contractor hired by Contractor. All lighting and equipment, including extension cords, shall be approved for use in wet environments. Extension cords shall be suspended off the floor of the work area. Contractor shall not use existing electrical receptacles from any room contained in the work area.

.c2.1.03 <u>APPLICABLE PUBLICATIONS</u>

The publications listed below form a part of this specification to the extent referenced. The publications are referenced in text by basic designation only.

- A. Environmental Protection Agency (EPA): Asbestos-containing Materials in Schools; Final Rule and Notice (Code of Federal Regulations Title 40, Part 763) (the AHERA regulations).
- B. Environmental Protection Agency (EPA): Model Accreditation Plan; Rule (Code of Federal Regulations Title 40, Part 763).
- C. Environmental Protection Agency (EPA): Regulations for Asbestos (Code of Federal Regulations Title 40, Part 61) (the NESHAP regulations).
- U.S. Department of Labor Occupational Safety and Health Regulations:
 29 CFR 1926; Construction Industry Standards
 29 CFR 1926.1101; Asbestos
 29 CFR 1910; General Industry Standards
- E. U.S. Department of Transportation Regulations; Title 49 CFR Part 173
- F. Utah Air Conservation Rules R307-1-8: Asbestos Certification, Asbestos Work Practices and AHERA Implementation, Latest Version
- G. Utah Administrative Code (UAC) Occupational Safety and Health Regulations, with special attention to the following:

UAC R574-100 Series (General Industry Standards)
UAC R574-104 Sect. 1910.1001 (Asbestos General Industry Standard)
UAC R574-104 Sect. 1910.134 (Respiratory Protection Standard)

- UAC R574-200 Series (Construction Safety Standards)
 UAC R574-200 Sect. 1926.1101 (Asbestos Construction Standard)
- H. National Institute for Occupational Safety and Health (NIOSH): "Respiratory Protection . . . A Guide for the Employee."
- I. American National Standards Institute/Compressed Gas Association: ANSI/CGA G-7.1-1989, Commodity Specification for Air.
- J. National Electrical Code, National Fire Protection Association, NFPA 70.
- K. Standard for Electrical Safety Requirements for Employee Work Places, NFPA 70E.
- L. National Plumbing Code, American National Standards Institute, ANSI A40.8.
- M. Salt Lake City-County Health Department Health Regulations #24, Asbestos
- N. Safeguarding Construction, Alteration and Demolition Operations, NFPA 241
- O. Any other ordinance or code having jurisdiction over this work.

.c2.1.04 DEFINITIONS

- A. Abatement Coordinator: The authorized representative of the Owner who has been designated to coordinate asbestos abatement activities.
- B. Airlock: A system for allowing access to an area with minimum air movement through the system. The airlock consists of two curtained doorways separated by a distance of at least 3 feet so personnel pass through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through of contaminated air.
- C. Air Monitoring: The process of measuring the asbestos fiber count of a volume of air using NIOSH Analytical Method 7400, the AHERA Transmission Electron Microscopy (TEM) method, The OSHA Reference Method (ORM), or other methods approved by the Contractor Industrial Hygiene Consultant (CIHC). Flow rate and sample volume shall be in accordance with the method chosen. All air samples shall be analyzed by a laboratory accredited by the American Industrial Hygiene Association (AIHA) for the analysis of airborne asbestos.
- D. Air Monitoring Technician: A person qualified by training or experience to collect air samples for asbestos determination. The individual must be familiar

- with sampling techniques, sampling equipment, calibration techniques and work practices useful for controlling air contamination.
- E. Amended Water: Water to which an approved surfactant has been added.
- F. Asbestos-containing Waste (including asbestos-contaminated materials):

 Materials containing more than 1% asbestos or contaminated with asbestos to a degree that handling the materials may reasonably be expected to produce airborne asbestos fibers.
- G. Authorized Visitors: Any visitor authorized by the Owner, the Contractor, or the CIHC or any representative of a regulatory agency or other agency having jurisdiction over this project.
- H. Building Owners representative: A representative contracted by the building Owner to oversee and relay all facets of the abatement project.
- I. Clean Room: An uncontaminated room which is part of the worker decontamination enclosure system and adjoins uncontaminated areas of the building, with provisions for storage of workers' street clothes and clean protective equipment.
- J. Contaminated Area: The work area or any other area of the building with either an airborne asbestos level equal to or above 0.010 fibers/cc as measured by PCM or visible uncontained deposits of ACM.
- K. Contractor: The asbestos abatement contractor or any sub-contractor hired under this contract.
- L. Contractor Industrial Hygiene Consultant (CIHC): An individual under contract with the Contractor, who is certified in the comprehensive practice or a specialty aspect of industrial hygiene by the American Board of Industrial Hygiene or who is otherwise qualified, by virtue of experience, in managing asbestos abatement work.
- M. Differential Pressure: A minimum pressure differential of minus 0.02 inches of water column relative to areas adjacent to the Regulated work space. Equipment used to maintain this pressure shall be HEPA filtered, and shall permit discharge of no more than 0.010 fibers/cc in the exhaust stream.
- N. Disposal Site: Asbestos area of a landfill which is approved for asbestos waste.
- O. HEPA Filter: A High Efficiency Particulate Air filter capable of trapping and retaining 99.97% of particles with aerodynamic equivalent diameters greater than or equivalent to 0.3 micrometers.

- P. HEPA Vacuum Unit: Vacuuming equipment equipped with a HEPA filter in the exhaust outlet, and so designed and maintained that 99.97% of all asbestos fibers (greater than or equal to 0.3 micrometers diameter) in the inlet air are collected and retained. In no case shall HEPA vacuum equipment discharge air containing more than 0.010 fibers/cc.
- Q. Pressure Differential Recording Device: An automatic recording instrument which will monitor the pressure differential between the contained asbestos abatement work area and the adjoining areas. The instrument shall continuously generate a permanent record.
- R. Wet-Cleaning: The process of eliminating asbestos contamination from building surfaces by using cloths or mops or other cleaning tools that have been dampened with clean water.
- S. All terms not defined here shall have the meaning given in the applicable publications and regulations.

.c2.1.05 <u>ADDITIONAL ASBESTOS MATERIALS</u>

The Contractor shall always be mindful of the possible presence of asbestos (in addition to the asbestos materials to be abated under this contract) and shall carry out the work with due diligence in light of this possibility. If the Contractor discovers asbestos, other than asbestos materials to be abated under this contract, Contractor shall take such action as reasonably necessary and feasible to provide an interim safe and secure environment for its employees and third parties until the determination can be made of how next to proceed. In so far as possible under applicable laws, rules, regulations, and requirements, Contractor shall keep confidential all information obtained respecting asbestos relative to this project, howsoever obtained, unless disclosure is otherwise required by safety considerations of any person.

.c2.1.06 ADDITIONAL SAFETY AND HEALTH CONSIDERATIONS

Asbestos abatement is, by its very nature, a hazardous activity. In addition to potential exposure to asbestos fibers, there are other safety and health hazards that are often present on the work site. The Contractor shall ensure that all UOSH Safety and Health Standards are complied with at all times.

The Contractor shall be, and remain at all times, solely responsible for the safety of its employees and all others in the performance of the work and shall take all precautions necessary to ensure such safety.

.c2.1.07 AUTHORITY TO STOP WORK

The Owner or the WSU designated representative and/or the CIHC have authority to stop work at any time if it is determined that abatement is not being performed according to these specifications or applicable regulations. The stoppage of work shall continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the Owner's representative/CIHC. Standby time required to resolve violations shall be at the Contractor's expense.

.c2.1.08 QUALIFICATIONS

- A. CERTIFICATIONS: Contractors performing work under this contract must be certified as an asbestos project operator by the State of Utah Department of Environmental Quality as described in Section 8 of the Utah Air Quality Regulations. Asbestos workers must have received the training described in Section 8 of the Utah Air Quality Regulations and possess a valid and current certification card issued by the state. Certification requirements for asbestos operators and workers may be obtained by contacting the State of Utah Department of Environmental Quality, Division of Air Quality.
- B. ACCREDITATION: Supervisors performing work under this contract must be accredited as Asbestos Abatement Contractors and Supervisors in accordance with the EPA Model Accreditation Plan, 40 CFR Part 763. At least one accredited supervisor shall be on-site at all times while work is in progress. Asbestos workers must be accredited as Asbestos Abatement Workers in accordance with the EPA Model Accreditation Plan, 40 CFR Part 763.
- C. INSURANCE: Contractor shall obtain and maintain in force during the entire work period of the Contract, at its expense, the following insurance from insurance companies that are rated "A" or better with a size category of Class VII where the contract amount is **less than \$1,000,000**. Contractor's insurance ACCORD certificate shall show the following types of insurance required for this project and associated liability limits:

Commercial General Liability Insurance and/or Comprehesive General Liability Insurance

General Aggregate - \$2,000,000 Products/Completed Operations Aggregate - \$2,000,000 Personal & Advertising Injury - \$1,000,000 per occurence Fire Damage - \$50,000 Medical Expense (any one person) - \$5,000

Automobile Liability Insurance

Excess Liability Insurance

Other than umbrella - \$2,000,000

Worker's Compensation Insurance

To match State of Utah statutory limits.

NOTE: The Owner shall be listed on the policy as both the "Certificate Holder" and as the "Additional Insured".

- D. BONDING: Contractor shall submit and maintain in full force and effect, as required by law and the Contract Documents, at its own expense, all bonds as detailed in the request for proposal. Bonds shall be from surety companies that are listed in the U.S. Department of Treasury Circular 570, Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, and acting within the limitation listed therin.
- E. EXPERIENCE: Bidders must have performed at least three asbestos abatement projects of similar size and nature in the past calendar year. As proof of this experience, the Contractor shall provide the names and telephone numbers of the purchasers of the abatement services with their bids.
- F. LICENSES: The Contractor shall indemnify and hold harmless the Owner from all claims and liabilities resulting from infringement of the air-filtration systems patent, either directly or indirectly, by such system.
- G. The Owner representative reserves the right to ask for the Contractor certified payroll reports associated with this project.

.c2.1.09 <u>AVAILABILITY OF TRAINED PERSONNEL</u>

There shall be a sufficient number of trained and qualified workers, foremen, and supervisors to accomplish abatement within the required schedule. Since general work cannot start prior to successful removal of all ACM and final decontamination has been finished, it is imperative that a sufficient number of trained personnel be engaged throughout the abatement process. **No uncertified persons, or persons not fully qualified, shall be employed during any phase of the abatement work, including preparation.** All personnel shall be pre-approved by the CIHC.

.c2.1.10 PRE-CONSTRUCTION MEETING

Before beginning actual removal activities, a Pre-construction Meeting will be held between the DFCM representative, the building Owner and/or his representative, the CIHC and the Contractor. The Contractor's superintendent and the job-site Foremen must attend this meeting. At this conference, **the DFCM representative**, **the CIHC**, **and the Contractor shall systematically review every section of these Technical Specifications.** The Contractor shall present a written work plan and present a general overview covering:

- A. Abatement plans that include drawings of the decontamination facilities and their location; work area isolation plan with layout of engineering controls (e.g., HEPA filters, etc.); security program; emergency plans; routing plan for removal of contaminated material from the building; and a listing of all tools, equipment and supplies proposed for use in the abatement program. In order to expedite approval of these documents, Contractor is encouraged to confer with the CIHC during their preparation. No abatement work shall be performed without approval of the abatement plans by the Owner's representative.
- B. Description of protective clothing and approved respirators to be used.
- C. Explanation of decontamination sequence to be used.
- D. Description of stripping, removal, and disposal methods to be used.
- E. Description of final encapsulation procedures and materials to be used.
- F. Description of the final cleanup procedures to be used.
- G. Proposed landfill for disposal of waste materials.
- H. Written Standard Operating Procedures described in Section 1.12.

.c2.1.11 PRE-ABATEMENT SUBMITTALS

The Contractor and CIHC shall furnish the following to the Owner's representative at least five (5) working days before abatement preparations are to commence:

- A. Layout of project execution showing the abatement work in stages, and the configuration of the workspace.
- B. Plans for engineering systems for controlling exposure and emissions, showing the number, location, and capacity of supply and exhaust systems, the expected directions of air flow, and maximum and minimum pressures in each room.
- C. Plans for isolation enclosures including location and construction methods.

- D. Detailed plans for decontamination facilities, toilets, and systems allowing intraroom communication and communication between the work area and the outside.
- E. Security system, warning signs, and labels for bags and drums.
- F. Standard Operating Procedures (Section 1.12) describing how workmen, visitors, and employees will be protected from exposure and how spaces outside the work areas will be protected from contamination until completion of abatement.
- G. Respiratory system plan, including a written respiratory protection program, sample respirators, hoses, and certificate from the manufacturer with system literature for the air supply system stating that air supply system meets this specification on quality, quantity and escape time.
- H. Fire and emergency evacuation plan.
- I. Manufacturer's specifications for wetting agents and low-pressure wetting system.
- J. Manufacturer's specifications for final encapsulation materials.
- K. Manufacturer's specifications for plastic sheeting to be used for the sealing of walls, floors, and openings and sealing tapes.
- L. Manufacturer's specifications for disposable protective clothing.
- M. Certification of medical examinations, including physician's approval to wear respiratory protection, covering each employee performing work on this project.
- N. Proof of existence of records that the Contractor is complying with UOSH medical surveillance requirements.
- O. Certification of completion of worker training for each employee performing work on this project and a photocopy of each worker's State of Utah Worker Certification Card.
- P. Description of scaffold erection procedures and the name of the designated "Competent Person" responsible for the scaffold erection.
- Q. A copy of the Contractor's safety program.

.c2.1.12 STANDARD OPERATING PROCEDURES

The Contractor shall develop and implement a standard operating procedure to ensure maximum protection of workers, facility employees, visitors and the environment from

asbestos exposure. Operating procedures shall be based on applicable sections of the standards listed in Section 1.03. The procedure shall ensure that:

- A. Security is provided on a 24-hour basis to prevent unauthorized entry into the workspace.
- B. Proper protective clothing and respiratory protection are worn prior to entering the workspace from the outside.
- C. Asbestos is removed in a manner that minimizes release of fibers.
- D. Packing, labeling, loading, transporting, and disposing of contaminated material is performed in a manner that minimizes exposure and contamination.
- E. Emergency evacuation for medical or safety (fire and smoke) reasons is performed in a manner so that exposure will be minimized.
- F. Accidents in the workspace, especially from electrical shocks, slippery surfaces, and entanglements in loose hoses and equipment are minimized.
- G. Provisions for effective supervision, air monitoring, and personal monitoring for exposure during the work are implemented.
- H. Engineering systems minimizing exposure to fibers in the workspace are used.
- I. Safe work practices in the workplace, including provisions for inter-room communications, exclusion of eating, drinking, smoking, or in any way compromising the integrity of the respiratory protection.
- J. Scaffolding and fall protection systems are effective, state of the art, and in compliance with all applicable regulations.
- K. The successful bidder will receive an orientation from the Owner's representative and/or the CIHC regarding the specific safety and health hazards that may be encountered during the course of their work under this contract. The Contractor shall devise a plan to ensure all of its employees have either received the training or are otherwise completely informed of the potential safety and health hazards that may be encountered.

.c2.1.13 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS AND POSTERS

The Contractor shall:

- A. Provide required notification to the Utah Department of Environmental Quality, Division of Air Quality at least ten (10) working days prior to asbestos abatement. Secure all required permits, including a permit to dispose of asbestos at an approved site.
- B. Erect UOSH-required warning signs around the workspace and at every point of potential entry to the worksite. The warning signs shall be a bright color so that they can be easily seen. The size of the lettering shall be large enough to be easily read. The warning signs shall bear the following information:

DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

C. Place UOSH-required labels on all plastic bags and all drums utilized to transport contaminated material to the approved disposal site. The warning labels shall contain the following information:

DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD

- D. The waste containers must also be labeled with the waste generator's name and the address of the location at which the waste was generated as required by EPA 40 CFR Part 61.150 and placarded according to DOT 49 CFR Part 173.
- E. Provide other signs, labels, warnings and posted instructions that are required and necessary to protect, inform, and warn of the hazard of asbestos exposure.
- F. The latest applicable UOSH and Utah DAQ regulations shall be posted on the job-site in a prominent and convenient place for workers to read.
- G. EPA required warning signs shall be posted on waste transport vehicles during all waste loading and unloading operations.

1.14 EMERGENCY PRECAUTIONS

- A. The Contractor shall establish and mark emergency and fire exits from the work area. The exterior of all emergency exits shall be equipped with two (2) full sets of protective clothing and respirators at all times.
- B. At least two (2) multi-purpose dry chemical fire extinguishers (e.g. 2-A: 10BC, 5 lb.) shall be placed within each containment area in well marked, readily accessible locations. The fire extinguishers shall have current inspection cards, i.e., have been inspected/serviced within the previous 12 months.

- C. Local medical emergency personnel, fire departments, ambulance crews and hospital emergency room staff, shall be notified prior to commencement of abatement operations about the possibility of having to handle contaminated or injured workmen, and they shall be advised regarding appropriate decontamination procedures.
- D. The Contractor shall be prepared to administer first aid to injured personnel. Seriously injured personnel shall be treated immediately or evacuated without delay for decontamination. When an injury occurs, the Contractor shall stop work and implement fiber reduction techniques (e.g., water spraying) until the injured person has been removed from the work area.

.c2.1.15 RESPIRATORY PROTECTION SYSTEMS

The removal of Surfacing ACM and Thermal System Insulation is a Class 1 asbestos removal project as defined by OSHA. The minimum acceptable respiratory protection shall be <u>powered air-purifying respirators</u>. This restriction shall remain in place until Contractor's air sample results are below the OSHA PEL.

The Contractor shall:

A. Provide all workers, foremen, superintendents, authorized visitors, and inspectors with personally issued and marked respiratory equipment, approved by NIOSH, that is deemed proper and reasonable for the type of work being performed and anticipated exposure levels. When respirators with disposable filters are employed, sufficient filters for replacement as necessary by the worker shall be provided. The respirators selected for use must provide a protection factor for the contaminant level expected. In addition to the general statement above, Table 1 will be used in the selection of respirators. Respirators shall be provided to authorized building employees entering the contaminated workplace while the removal is in process.

TABLE I.

Asbestos Concentration	Minimum Acceptable Respirator
*1. Up to 1 fiber/cc	Half-mask air purifying respirator with cartridges approved for asbestos.
2. Up to 5 fibers/cc	Powered air-purifying respirator (half- or full-face
3. Over 5 fibers/cc	Full face piece, Type "C" supplied air

respirator, operated in the pressure-demand mode.

- * Greater respiratory protection is always acceptable regardless of asbestos concentrations.
 - B. When Type "C" respirators are employed, the air supply system shall provide Grade "D" breathing air in accordance with UAC R574-104 Sect. 1910.134 and ANSI/CGA G-7.1-1989, Commodity Specification for Air.
 - C. The compressed air system for Type "C" respirators shall be high pressure, with a compressor capacity to satisfy the respirator manufacturer's recommendations. The receiver shall have sufficient capacity to allow a 15-minute escape time for the respirator wearers in the event of compressor failure or malfunction. The compressed air system shall have a compressor failure alarm, high temperature alarm, carbon monoxide alarm, and suitable inline air purifying sorbent beds and filters to assure Grade "D" breathing air.
 - D. Provide a minimum of two spare hoses to be available at any time to authorized visitors and inspectors to connect to their assigned Type "C" respirator without having to wait for removal of workers from the working area to obtain a connection.
 - E. Type "C" respirators shall be worn with a belt to minimize the possibility of dislodging the face mask in the event of the hose becoming snagged in the work area.

.c2.1.16 PROTECTIVE CLOTHING

The Contractor shall:

- A. Provide to all workers, foremen, superintendents and authorized visitors and inspectors protective disposable clothing consisting of full-body coveralls, head covers, gloves, and 18-inch-high boot covers or reusable footwear. No street clothes other than undergarments shall be worn under the coveralls.
- B. Provide eye protection and hard hats as required by job conditions and safety regulations.
- C. Require that reusable footwear, hard hats, and eye protection devices be kept in the "contaminated equipment room" until the end of the asbestos abatement work at which time they shall be decontaminated or discarded as asbestos waste.

D. Discard and dispose of all disposable protective clothing and gear as asbestos waste every time a wearer exits from the workspace to the outside through the decontamination facilities.

.c2.1.17 <u>DECONTAMINATION AND WASTE TRANSFER FACILITIES</u>

- A. When working with friable ACM, or non-friable ACM that is likely to become friable during the project, as determined by the CIHC, the Contractor shall:
 - 1. For each abatement area, provide decontamination facilities located in an area agreed upon with the CIHC. The decontamination facilities shall include one decontamination enclosure system for personnel and one decontamination enclosure system for removing asbestos-containing waste materials.
 - 2. The decontamination enclosure system for removing asbestos-containing waste materials shall consist of an airlock from the work area leading into the waste transfer room, and another airlock leading into the clean outside area.
 - 3. All asbestos-containing waste materials inside the abatement area shall be placed in plastic waste bags for disposal. Bags of asbestos-containing waste materials shall be packed and sealed in plastic-lined drums or a second waste bag before being removed from the work site.

 Waste removal shall be performed using a minimum of three workers in the following manner: one worker located inside the contaminated work area shall pass sealed bags of waste into the waste transfer room. There, they will be washed and placed directly inside a clean drum, or clean, unused bags being held by a second worker who is standing inside the clean area. The bags will be "goose-necked" and sealed in the clean area and then passed to a third worker located in the outside area, who transfers the container to a vehicle properly equipped for transporting the ACM to a disposal site.
 - 4. The decontamination enclosure system for personnel shall consist of three rooms as follows: clean room at the entrance followed by the shower room followed by an equipment room leading to the work area.
 - 5. Provide lockers for storage of street clothes of workers in the clean room. Provide in the same room uncontaminated disposable protective clothing and equipment. This room shall be used by workers and visitors to change from street clothes into disposable protective clothing and gear prior to entering the contaminated area and to change back into street clothes after

- they have showered and dried in the shower room as they exit from the contaminated area.
- 6. Provide the equipment room with storage for contaminated clothing and equipment. In this room, workers and visitors dispose of their disposable protective clothing, except the respirator, as they prepare to enter the shower room.
- 7. Install showering facilities with hot and cold water so arranged as to provide complete showering of workers and visitors as they exit from the contaminated area. Make provisions to prevent any contaminated runoff from the shower room. The contractor shall filter all waste water to 5-microns before discharge into a sanitary sewer.

c2.1.18 <u>EMISSION CONTROLS</u>

There shall be no asbestos emissions from the work area. To this end, the Contractor shall:

- A. Provide supply air to, and exhaust air from, the work area to maintain a differential pressure of minus 0.02 inches of water relative to the atmosphere outside of the containment, while also insuring that there are at least four (4) air changes per hour within the containment. The ventilation system shall operate on a 24-hour basis throughout the abatement process until the area passes final clearance testing, in accordance with Section 3.07 of this specification. The ventilation design shall be in accordance with EPA recommendations included in the "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings," Appendix F. *Exhaust from the Air Filtration devices shall be vented to the exterior of the building*.
- B. Provide an automatic recording instrument to monitor the pressure differential in a representative location. The instrument shall continuously generate a permanent record.
- C. In a multi-room abatement project, provide a sufficient number of supply and exhaust units to create a stream of air away from the breathing zone of workers in each room and in such a way so as not to damage or compromise the integrity of the containment barriers.
- D. All waste water generated within the work area shall either be drummed and disposed of as asbestos containing waste or filtered through a 5-micron filtering system prior to discharge into a sanitary sewer.

c2.1.19 PERSONNEL PROTECTION AND DECONTAMINATION

The Contractor shall provide all personnel with specified protective clothing and gear throughout the abatement process. The Contractor shall also ensure that all personnel entering and leaving the workspace adhere to the following procedures.

- A. When working with friable ACM, or non-friable ACM that is likely to become friable during the project, as determined by the CIHC, the Contractor shall:
 - 1. When entering from the outside: change from street clothes into protective clothing and wear clean protective gear. Go through shower room into dirty equipment room, pick up equipment and tools, and enter the work area.
 - 2. When exiting from the work area: Dispose of all protective clothing into labeled plastic bags for asbestos waste. Do <u>not</u> take off the respirator, but, still wearing the respirator, enter the shower and wash off thoroughly. Remove respirator and wash and wipe thoroughly to decontaminate. Remove filter cartridges and dispose of as asbestos-containing waste. After drying, enter the clean room, store the decontaminated respirator in the assigned space, and put on street clothes.
- B. The Contractor shall post written emergency procedures in workplace and train all personnel on the procedures for the evacuation of injured persons and the handling of fires. Aid shall be given to a seriously injured worker without delay for decontamination. Provisions shall be made to minimize exposure of rescue workers and to minimize spreading of contamination during evacuations and fire procedures.
- C. The Contractor shall instruct all employees and workers in the proper care of their personally issued respiratory equipment, including daily maintenance, sanitizing procedures, etc., as described in the Contractor's written Respiratory Protection Program.
- D. The respiratory equipment shall be inspected by the Contractor's project supervisory personnel at the beginning of each work period, including those following breaks and lunch, or other meals.

1.20 <u>DISPOSAL ACTIVITIES</u>

A. It is the responsibility of the Contractor to determine current waste-handling, transportation, and disposal regulations for the work site and for each waste-disposal site. The Contractor must comply fully with these regulations and all U.S. Department of Transportation and EPA regulations.

- B. If a dumpster is brought on site and used, it must be covered and lockable. Waste generated on this project shall be kept separate from waste generated on other projects that the Contractor may be engaged in, and shall be disposed of immediately at the end of this project at an in-state approved asbestos disposal facility.
- C. Contractor will document actual disposal of the waste at the designated site by completing a Disposal Certificate and obtaining a receipt at the disposal site.

1.21 TIME OF COMPLETION AND LIQUIDATED DAMAGES

A. This project shall commence May 6th, 2006 and be completed by June 16th, 2006.

PART 2 - ASBESTOS ABATEMENT PRODUCTS

.c2.2.01 TOOLS AND EQUIPMENT

The Contractor shall provide the following:

- A. Asbestos Filtration Device: Asbestos filtration devices shall utilize High Efficiency Particulate Air (HEPA) filtration systems.
- B. Scaffolding: Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the work specified. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions.
- C. Transportation Equipment: Transportation equipment, as required, shall be suitable for loading, temporary storage, transmission, and unloading of contaminated waste without exposure to persons or property. Any dumpsters utilized on-site by the Contractor must be covered and lockable.
- D. Vacuum Equipment: All vacuum equipment utilized in the work area shall utilize HEPA filtration systems.
- E. Water Sprayer: The water sprayer shall be an airless or other low-pressure sprayer for amended water application.
- F. Polyethylene Sheeting: All polyethylene plastic sheeting shall be classified by its manufacturer as being fire-resistant.
- G. Encapsulant: Spray encapsulant shall meet the fireproofing requirements of ASTM E 119 and ASTM P-189, and shall meet the U.S. EPA Battelle standards for encapsulants. All abatement encapsulants shall be approved, prior to use, by the Owner (some encapsulants, due to color or content, may not be suitable for use in this facility). At the Pre-construction (Pre-abatement) Conference, Contractor shall supply the Industrial Hygiene Consultant with Material Safety Data Sheets (MSDS's) and other information necessary to determine compatibility with current and future needs of the Owner.
- H. Pressure Differential Recording Device: An automatic recording instrument to monitor the pressure differential between the contained asbestos abatement work area and the adjoining areas. The instrument shall continuously generate a permanent record.

I. Other Tools and Equipment: The Contractor shall provide other suitable tools for the stripping, removal, and disposal activities, including, but not limited to, handheld scrapers, wire brushes, sponges, round-edged shovels, brooms, and carts.

PART 3 - ASBESTOS ABATEMENT EXECUTION

.c2.3.01 ASBESTOS ABATEMENT PREPARATIONS

- A. The area(s) of asbestos removal shall be totally isolated from portions of the building not included in the work. Prior to any abatement work in an area, seal off the entire area to persons other than trained personnel and authorized visitors. Erect signs around the perimeter in accordance with EPA, UOSH, and these specifications. Provide 24-hour security against unauthorized entry during abatement. Maintain a log of all people entering and exiting the work space.
- B. With the assistance of the Owner's representative and the CIHC, the Contractor will deactivate, lock-out and seal all air-conditioning and building ventilation systems to the abatement area and disconnect electrical service as required.
- C. In all areas where friable ACM is to be disturbed, or where non-friable ACM is likely to become friable, as determined by the CIHC, the work area shall be prepared as described below.
- D. The Contractor shall completely isolate the work area for the duration of the asbestos removal.
- E. The Contractor shall completely isolate the work area for the duration of the asbestos removal. Rigid barriers are required to partition work areas from public access and actively occupied office and work spaces of the building. Such barriers in other areas may be requested at the discretion of the on-site hygienist or building Owner's representative.
- F. Where fireproofing and/or textured ceiling material is to be removed, Contractor shall seal the open tops of all non-solid walls with at least one layer of 6-mil polyethylene plastic sheeting.
- G. <u>Critical barriers</u> shall be constructed between the work area and any clean area. This barrier shall consist of first closing any doors not being used for access during the abatement, and duct taping all seams, both sides. Two (2) layers of 6-mil polyethylene sheeting shall then be applied over the entire door structure on the work area side, as well as two (2) layers (6-mil) on the clean side. Warning signs shall be displayed on the clean side of the door.
- H. The Contractor shall seal all windows, skylights, duct openings, fan-coil units, radiators, electrical outlets and switches, non-movable cabinetry and equipment,

etc., with a minimum of one layer of 6-mil polyethylene sheeting. The Contractor shall also pay particular attention to any pipe chases, utility access openings and common air plenums between work areas and adjacent floors, etc. Ensure that barriers are effectively sealed and taped. All penetrations must be sealed airtight. Once critical barriers are installed, the entire work area shall then be protected with polyethylene sheeting.

- I. Install sufficient Air Filtration Devices to provide a minimum of four (4) air changes per hour and maintain a differential pressure of minus 0.02 inches of water relative to the outside of the containment, per section 1.18.
- J. Wall sheeting and, where appropriate, ceiling sheeting, shall consist of two (2) layers of 6-mil polyethylene plastic sheeting. It shall be installed to minimize joints and shall overlap floor sheeting by at least 18 inches. No seams shall be located at the corners. The Contractor shall install (where feasible) a clear acrylic plastic window with minimum dimensions of 24" x 24" in at least one wall of the containment structure in an area which provides the greatest visibility of the work area designated by the CIHC. This window is to be used for observation of the work area by the on-site CIHC, Contractor's foreman, Owner's representative and other Owner personnel.
- K. Contractor shall ensure that barriers are effectively sealed and taped. Contractor shall employ the use of smoke methods to test effectiveness of barriers. Visually inspect enclosures prior to each work day; repair damaged barriers and remedy defects immediately.
- L. Contractor shall construct and utilize scaffolding where necessary to gain access to asbestos.
- M. Detach and clean removable electrical, heating and ventilating equipment and other items connected to asbestos surfaces. The Contractor shall also dismantle and clean duct work to gain access to asbestos-containing materials above the duct work. These items shall be removed from the work area using decontamination procedures and returned to their proper place when the work area has been decontaminated.
- N. Prior to removal of any asbestos, the CIHC, accompanied by the Contractor shall inspect the following: enclosures, showers and toilets, personnel protection and decontamination procedures, exposure control systems, notifications and permits, standard operation procedures, personnel training certificates and testing, removal, decontamination and storage of materials, securing of the work area and equipment for communications. If any inadequacies are found during the inspection, the Contractor shall make the changes required by the CIHC.

- O. Where work is to be performed within an area with carpeted floors, all carpets shall be covered with a minimum of three (3) layers of 6 mil. fire-retardant polyethylene sheeting. If scaffolding must be used in an area with carpeted floors, the floor shall be covered with one layer of 10 mil fire retardant polyethylene sheeting, followed by a layer of a minimum one-half inch underlayment followed by two (2) layers of 6 mil. fire retardant polyethylene sheeting. At the completion of the asbestos removal, all carpets shall be cleaned with a HEPA vacuum and steam cleaned.
- P. Light fixtures and other items mounted to suspended ceilings which are to be removed shall be removed under asbestos-control conditions by the Contractor, decontaminated using HEPA vacuum and wet-wiping techniques and stored in a location designated by the Owner and CIHC.
- Q. In all areas where only non-friable ACM, such as floor tile, is to be disturbed without becoming friable, install critical barriers as described in paragraph F, and emission controls described in paragraph G, above. A three-foot-high splash guard of 6-mil polyethylene sheeting shall be placed along all walls and around all other floor-mounted fixtures where asbestos-containing flooring is to be removed. Ensure that barriers are effectively sealed and taped. Use smoke methods to test effectiveness of barriers. Visually inspect enclosures prior to each work day; repair damaged barriers and remedy defects immediately.

.c2.3.02 <u>UTILITIES</u>

- A. All utility connections necessary for abatement will be made available to the contractor. The Contractor shall specify in his/her Bid Package what utilities will be required. Where feasible, the Contractor, with cooperation and guidance from the Owner and the CIHC, shall shut down, disconnect and lock-out all electric power to the work area so there is no possibility of reactivation and electrical shock during the entire abatement process. Temporary electrical power shall be in accordance with UOSH regulations and the Electrical Code for Wet Environments. All electrical power within the containment and decontamination facilities shall be GFCI protected. All temporary electrical connections, such as the connection of a temporary construction circuit from a breaker box, shall be performed by a state licensed electrician. Evidence of the installation and the electrician's name shall be provided to the CIHC.
- B. In case some cables or conduits within the containment area cannot be deactivated, they shall be completely protected from any and all water and humid conditions by the use of polyethylene sheeting or other appropriate methods approved by the CIHC.
- C. Temporary lighting must be provided by the Contractor. All electrical power cords must be kept dry and off the floor.

.c2.3.03 <u>ASBESTOS REMOVAL</u>

- A. All asbestos removal shall be conducted in accordance with the applicable paragraphs of 29 CFR 1926.1101 (g) Methods of Compliance.
- B. Except as noted herein and/or in drawings, all asbestos that is to be removed shall be wetted with "amended water" using an approved sprayer. The amended water shall contain a wetting agent such as 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester or equivalent, mixed with one ounce to five gallons of water. An approved equivalent may be used. To minimize fiber release the amended water shall be applied using a fine spray. The material to be removed shall be saturated sufficiently throughout so there will be no fiber release from dry asbestos. In many areas, it may be necessary to pre-saturate asbestos materials the day before removal.
- C. Immediately following removal, wet ACM shall be packed into labeled 6-mil plastic bags to prevent the material from drying. All bagged material shall be packed and sealed in labeled drums or double bags. The exterior of the sealed drums or bags shall be thoroughly cleaned prior to loading for transport to the disposal site.
- D. Where all asbestos within an area can be removed from pipes, pipe elbows, pipe tees, and pipe hangers by the use of containment bags, the bags can be considered the primary barrier. A secondary barrier must still be constructed to prevent contamination of the area should a bag break. Glove-bag removal must be conducted under negative pressure. Cleaning and final decontamination requirements shall be in accordance with Section 3.06 of this specification.
- E. In some cases, because of electrical hazards or expensive equipment that could be damaged by water, it may not be feasible to wet the asbestos. Extreme care must be exercised to remove the asbestos so that airborne fibers will be minimized. Supplemental notification of and subsequent approval from the EPA designated regulators is required where asbestos is removed dry.
- F. All used plastic, tape, cleaning material, and clothing shall be treated as asbestoscontaining waste material.
- G. Waste disposal shall be in a landfill approved for asbestos waste. The bags shall not be thrown into landfills in a way that may cause the bags to burst open. If bags cannot be taken out of the drums undamaged, then include the disposal of the drums with the bags. Ensure that bags are not broken open in the process.

.c2.3.04 SUBMITTALS DURING & AFTER ABATEMENT

The Contractor shall submit copies of the following items to the CIHC, upon request and at the completion of the project:

- A. Security and safety logs showing names of persons entering the worksite, date and time of entry and exit, record of any accident, emergency evacuation, and any other safety and/or health-related incident.
- B. Disposal certificates and/or receipts.
- C. Hazardous Waste Manifests
- D. Required permits, clearances, licenses, etc.
- E. Safety plan conformance and meeting reports including all injury reports.
- F. Contractor Daily Logs and Reports.
- G. Contractor air sampling data and laboratory reports.

c2.3.05 MONITORING, TESTING & INSPECTION

- A. The performance and execution of the work will be closely and continuously monitored by the CIHC and his technicians. The CIHC shall not be an employee of the Contractor performing asbestos abatement work. The role of the CIHC is to protect the Owner's interests. The Contractor shall provide full cooperation and support to the CIHC and his technicians throughout the abatement process. Removal monitoring by the CIHC will include air samples in the areas surrounding the containment area, checking the containment area separation, work practices, engineering control system, HEPA vacuum system, respiratory protection system, packing material, packaging, transporting and disposal of asbestos, decontamination facilities and procedures and any other aspects of the abatement process that may impact the health and safety of the general public and the pollution of the environment. Monitoring frequency will be determined by the CIHC and Owner's Representative.
- B. Contractor shall conduct all air monitoring as required by the UOSH Asbestos Construction Standard, UAC R574-200 Section 1926.1101, and federal OSHA construction regulations for asbestos, 29 CFR 1926.1101. All employee exposure monitoring shall be conducted in accordance with the OSHA Reference Method (ORM) located in Appendix A of the federal OSHA Construction Regulations for Asbestos, 29 CFR 1926.1101.
 Contractor shall conduct daily full-shift monitoring that is representative of the
 - exposure of each employee on the worksite. Determinations of employee exposure shall be made from breathing zone air samples that are representative of the 8-hour time-weighted average (TWA) and 30-minute short-term exposure of

each employee. Daily monitoring shall begin when any work activity may disturb ACM, or when employees may otherwise be exposed to airborne asbestos fibers. Air monitoring that is representative of the exposure of each employee on the worksite can be provided by sampling all employees or by sampling one or more employees reasonably expected to have the highest exposure and applying the sampling results to the appropriate remaining exposed employees.

C. All air samples collected as part of this project must be analyzed by Dixon Information, Incorporated, located at 78 West 2400 South, South Salt Lake, Utah 84115. Dixon is an A.I.H.A. accredited laboratory for analysing air and bulk samples for asbestos. All air sampling shall be performed by a qualified air sampling technician. A qualified air sampling technician is a person qualified by training or experience to collect air samples for asbestos determination. This technician shall be familiar with sampling techniques, equipment, calibration techniques and work practices useful for controlling air contamination. Contractor shall bear all of the costs associated with his sampling and analysis.

NOTE: All Contractor air samples shall be analyzed by Dixon Information, on a rush basis, and the results shall be posted on the job site within 24 hours from the termination of each day's sampling.

D. The performance and execution of the air sampling will be closely monitored by the CIHC and Owner's Representative. Written copies of Contractor's air sample results and supporting daily logs shall be provided to the CIHC within 24 hours of the completion of sample collection. Additional air sampling may be conducted by the CIHC to confirm results obtained by the Contractor.

3.06 <u>CLEANING AND FINAL DECONTAMINATION</u>

A. After the removal of asbestos has been completed and before the containment barriers are dismantled, the entire area shall be thoroughly wet cleaned and/or vacuumed with HEPA-filtered vacuum cleaners. All loose dust and debris shall be removed from walls and floors of the containment and from all equipment within the containment area. (There shall be no residual ACM remaining on equipment at this time.) Following a 24-hour waiting period to allow dust to settle, a second thorough cleaning shall be performed. The second cleaning shall also use wet wiping and/or HEPA-vacuuming techniques. After the second cleaning has been performed, the final visual inspection described in Section 3.07 of this specification will be performed. After the visual inspection has been completed and successfully passed, the Contractor shall apply an approved "lockdown" encapsulant to the entire interior of the contained work area. The encapsulant must be completely dry, typically 12-24 hours after application, before the final clearance air sampling described in paragraph 3.07 B can be started.

- B. Where glove bags have been used and no bags have broken, or there is no other reason to believe that the area inside the secondary barrier has been contaminated, no cleaning of the area will be required prior to final inspection and testing in accordance with Section 3.07 of this specification. If the results of the final testing are not satisfactory, then the cleaning requirements of Section 3.06 A of this specification shall apply.
- C. After the decontamination levels specified have been confirmed through the final testing specified herein, the containment enclosure and critical barriers shall be removed, and the plastic, tape, disposable equipment and material from equipment room and shower room bagged and disposed as asbestos waste. All reusable contaminated equipment, such as masks, hard hats, etc., shall be thoroughly decontaminated through wet-cleaning or properly packaged prior to transport off the site.
- D. The Contractor shall perform a final cleaning using HEPA vacuums and wetwiping of the entire work area after removal of the containment enclosure.
- E. A final inspection of the work area after the removal of the containment will be conducted by the CIHC and/or Owner's representative to ensure no dust or debris remain anywhere as the result of the abatement operations. If necessary, the Contractor will again clean the area to the satisfaction of the CIHC.

.c2.3.07 <u>FINAL INSPECTION AND TESTING</u>

- A. After a thorough cleaning of the workspace, and a high degree of cleanliness has been achieved and the area has been verified to be clean by the project supervisor, the CIHC shall be notified that the workspace is ready for inspection and final testing. The CIHC will visually inspect the workspace for the detection of any visible asbestos dust or contamination. If the results of the visual inspection are not satisfactory, a thorough wet-cleaning and/or HEPA-vacuuming shall be repeated until the required cleanliness is achieved. If the visual inspection does not detect dust or other signs of contamination, the final clearance testing will commence.
- B. Final testing shall be conducted by the CIHC and shall consist of aggressive air sampling in the workspace. Fans shall be run in the area and/or sweeping conducted while representative air samples are taken. A large enough air sample shall be taken to allow detection of airborne fibers to a concentration of 0.005 fibers/cc of air. The work area shall be certified as clean when the total airborne fiber concentrations are less than 0.01 fibers/cc using phase contrast microscopy (NIOSH Method 7400). At the option of the CIHC, dust samples may be taken to be analyzed for asbestos content to confirm the results of the air sampling. At the

option of the CIHC, electron microscopy may be employed to confirm the results of the final testing. If the results of the final testing are not satisfactory, a thorough wet-cleaning and/or HEPA- vacuuming shall be repeated until the required decontamination levels are achieved.

- C. In the event that the results of the final testing are not satisfactory, and that recleaning and/or additional final sampling are necessary, the CIHC will coordinate with the Owner's representative about any further costs of recleaning, sample collection and sample analyses.
- D. The decision of the Contractor Industrial Hygiene Consultant and Building Owner's Representative is final as to whether work areas pass visual inspection and clearance air sampling.

.c2.3.08 RESPONSIBILITY FOR DAMAGES

Any damages to windows, doors, etc., that may compromise the security of the building during the abatement shall be the Contractor's responsibility to reinstate.

SECTION 01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Scope of Work: The demolition work indicated is limited to interior work. Work disciplines include only architectural general demolition, as depicted in the plans. Demolition Contractor will be responsible for utility shut-down, including plumbing and power affected by selective demolition operations.
 - 1. The abatement of hazardous materials is part of this contract. The scope of that work and drawings indicating location of the hazardous materials were prepared by others, but are included in this bid package for information purposes and to assist in preparing a complete bid for the abatement work.
 - 2. The removal of universal waste (i.e. PCB, mercury, etc.) is to be part of the abatement/demolition scope.
 - A citric acid product to cut asphalt base adhesives is being used in the abatement process.
 After all of the adhesives are removed from the slab, the Contractor is responsible to clean surface with acceptable detergent cleanser, to remove any oil or residue that may hinder installation of new finishes.

1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to Owner's designated storage area.
- C. Salvage by Owner: will be removed by Owner prior to start of demolition operations.
- D. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Architect, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.
- E. Hours of Operation: The hours of operation for demolition and abatement activities are not restricted. (24 hours per day, 7 days per week.)

1.4 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

1.5 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections, for information only, unless otherwise indicated.
- B. Schedule of selective demolition activities indicating the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services.
 - Coordination for shutoff, capping, and continuation of utility services.
 - 4. Detailed sequence of selective demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
 - 5. Locations of temporary partitions and means of egress.
- C. Inventory of items to be removed and salvaged.
- D. Inventory of items to be removed by Owner.
- E. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before starting selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.7 PROJECT CONDITIONS

- A. Owner will not occupy areas immediately adjacent to selective demolition area. Provide not less than 48 hours' notice to Owner of activities that will affect Owner's operations.
- B. Owner assumes no responsibility for actual condition of building areas to be selectively demolished.
 - 1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as far as practical.
- C. Hazardous Materials: Hazardous Materials will be encountered in the Work and removal is included in this Project scope. Refer to Hazardous Materials Abatement scope, prepared by Rowland Consulting, included with this document for information purposes to fulfill requirements of the abatement effort.
- D. Storage or sale of removed items or materials on-site will not be permitted.

1.9 SCHEDULING

- A. Arrange selective demolition and abatement activities so as not to interfere with Owner's or General Contractor's on-site operations. Time is of the essence with this work.
- B. Refer to schedule included for scheduling requirements.

PART 2 - PRODUCTS

2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
 - 1. Where identical materials are unavailable or cannot be used for exposed surfaces, use

materials that visually match existing adjacent surfaces to the fullest extent possible.

2. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the Architect.
- D. Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
- E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES

- A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - Do not interrupt existing utilities serving operating facilities, except when authorized in writing by Owner and authorities having jurisdiction.
 - a. Provide not less than 48 hours' notice to Owner if shutdown of service is required during selective demolition.
- B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving building to be selectively demolished. Coordinate with WSU.
 - 1. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
 - 2. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

- A. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- C. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 2. Protect existing site improvements, appurtenances and walkways.
 - 3. Provide temporary covers for display cases noted to remain

- 4. Protect walls, ceilings, floors, and other existing finish work that is to remain and is exposed during selective demolition operations.
- 5. Cover and protect furniture, furnishings, and equipment that have not been removed.

3.4 SELECTIVE DEMOLITION

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically in sequence as indicated in the schedule.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Obtain Hot-work permit from Campus Fire Marshal prior to commencement of flame-cutting operations.
 - 5. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 6. Maintain adequate ventilation when using cutting torches.
 - 7. Remove dangerous or unsuitable materials and promptly dispose of off-site.
 - 8. Remove overhead framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 9. Locate selective demolition equipment throughout the structure and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 10. Dispose of demolished items and materials promptly. On-site storage of removed items is prohibited.
 - 11. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.

3.5 PATCHING AND REPAIRS

A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.

3.7 CLEANING

- A. Sweep the building floors broom clean on completion of selective demolition operation.
 - No accumulated dust is to be left in place on any surface to remain.

END OF SECTION 01732

De	WSU: Lind Lecture Hall Remodel molition & New Construction Schedule	May 8-12	May 15-19	May 22-26	May 29 - June 2	June 5-9	June 12-16	June 19-23	June 26-30	July 3-7	July 10-14	July 17-21	July 24-28	July 31 - August 4	August 7-11	August 14-18	August 21-25
	Ground Floor:																
	Cadaver Lab Ceiling Removal	•															
	Mechanical Room																
	Mudded Pipe Fittings Removal	•	•	•													
l _	Insulation Removal	•															
l ö	2nd Floor:																
Demolition	Corr VAT Removal	•	•	•													
lε	Ceiling Removal		•	•													
De	Toilet Rooms Demo		•	•													
	Attic Abatement			•	•	•	•										
	1st Floor:																
	Corr VAT Removal	•	•	•													
	Ceiling Removal	•	•	•	•												
	Toilet Rooms Demo			•	•												
	Ground Floor Cadaver Lab:																
	HVAC													•	•		
	Ceiling, etc.														•	•	
	General:																
	Automatic Door Operator												•				
	Elevator Phone												•				
	Paint Ceilings						•	•									
	2nd Floor:																
	Toilet Rooms							•	•	•							
ے	Ceilings / Lights								•	•	•						
을	VCT / Base										•						
Construction	Paint Walls, Doors								•	•							
St	1st Floor:																
l ö	Toilet Rooms						•	•									
	VCT / Base								•	•							
	Paint Walls, Doors						•	•	•	•							
	2nd Floor:								_	_	_	_					
	HVAC								•	•	•						
	Alternates:	1			•	1			r				r	•	1	•	
	Hardware														•	•	
	Stairs							•	•	•	•	•					
	Alarm												•				
	1st Floor Lighting									•	•						
	Punchlists														•	•	